

Applicant: Wolfgang STOECKLEIN et al.
Docket No. R.307294
Preliminary Amdt.

AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

- [0000.2] CROSS-REFERENCE TO RELATED APPLICATIONS
- [0000.4] This application is a 35 USC 371 application of PCT/EP 2005/050436 filed on February 1, 2005.
- [0000.6] BACKGROUND OF THE INVENTION

Please replace paragraph [0001] with the following amended paragraph:

- [0001] **Prior Art** **Field of the Invention**

Please replace paragraph [0002] with the following amended paragraph:

- [0002] The invention relates to an injection nozzle for an internal combustion engine, in particular in a motor vehicle, ~~with the defining characteristics of the preamble to claim 1.~~

Please add the following new paragraph after paragraph [0002]:

- [0002.5] Description of the Prior Art

Please replace paragraph [0003] with the following amended paragraph:

- [0003] US 6,520,423 B1 has disclosed an injection nozzle ~~of this kind~~ that has a nozzle needle for controlling an injection of fuel through at least one injection orifice. The injection nozzle also has a piezoelectric actuator for driving a coupling piston that protrudes into a coupling chamber and at least partially delimits it. The nozzle needle or a needle unit that contains the nozzle needle has a control surface that at least partially delimits a control chamber and communicates with the coupling chamber. In [[the]] this known injection nozzle, the control surface is situated at an end of the nozzle needle or needle unit oriented toward the at least one injection orifice. In order to open the nozzle needle, the actuator ~~in the~~

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known injection nozzle drives the coupling piston so that it plunges deeper into the coupling chamber, thus reducing the volume of the coupling chamber. The reduction in the coupling chamber volume increases the pressure contained therein, which causes a corresponding pressure increase in the control chamber with which it communicates. Correspondingly, the control surface in the control chamber is subjected to the increased pressure, which exerts a force on the nozzle needle or needle unit, oriented away from the at least one injection orifice. As a result, the opening forces acting on the nozzle needle or needle unit prevail so that the nozzle needle lifts away from its seat and permits a fuel injection to occur through the at least one injection orifice.

Page 2, please replace paragraph [0005] with the following amended paragraph:

[0005] **Advantages of the Invention**

SUMMARY AND ADVANTAGES OF THE INVENTION

Please replace paragraph [0006] with the following amended paragraph:

[0006] The injection nozzle according to present invention, ~~with the defining characteristics of claim 1,~~ has the advantage over the prior art that the nozzle needle can be controlled directly by means of a vacuum, which essentially permits less strict manufacturing tolerances to be set. An increased amount of guidance play has the inverse effect of reducing manufacturing costs. Furthermore, in the injection nozzle according to the invention, the increase or reduction of pressure against the control surface can be easily implemented so that no lateral forces are introduced into the nozzle needle or needle unit, which improves the function of the injection nozzle.

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Page 4, please delete paragraph [0010].

Please replace paragraph [0011] with the following amended paragraph:

[0011] Drawings **BRIEF DESCRIPTION OF THE DRAWINGS**

Please replace paragraph [0012] with the following amended paragraph:

[0012] An exemplary embodiment of the injection nozzle according to the invention is shown in the drawings and will be explained in detail below, in conjunction with the drawings, in which: [[;]] components that are the same, similar, or functionally equivalent have been provided with the same reference numerals:

Please replace paragraph [0013] with the following amended paragraph:

[0013] Fig. 1 schematically depicts a longitudinal section through an injection nozzle according to the invention, and

Page 5, please replace paragraph [0015] with the following amended paragraph:

[0015] Description of the Exemplary Embodiment

DESCRIPTION OF THE PREFERRED EMBODIMENT

Page 13, please add the following new paragraph after paragraph [0034]:

[0035] The foregoing relates to a preferred exemplary embodiment of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.

Please delete pages 14 and 15.